

INDEX

DOKLADY BIOPHYSICS

Volumes 178-183, 1968



## DOKLADY BIOPHYSICS

Volumes 178-183, 1968

(A translation of the Biophysics Sections of Doklady Akademii Nauk SSSR)

### A

Alievskaya, L. L. - 138  
Andronikashvili, É. L. - 145, 154  
Anisimova, I. N. - 96

### B

Babaeva, M. K. - 17  
Bakradze, N. G. - 145, 172  
Baraboi, V. A. - 167  
Basurmanova, O. K. - 70  
Bell, L. N. - 59  
Belyanin, V. N. - 26, 121  
Berlin, L. B. - 47  
Bobrova, V. N. - 20  
Bychkovskaya, I. B. - 1  
Bystrova, M. I. - 109

### C

Chanchalashvili, Z. I. - 145  
Cheredeev, A. N. - 114  
Chernitskii, E. A. - 169  
Chetverikov, A. G. - 11  
Chetverikova, E. P. - 138

### D

Dedov, I. I. - 73  
Doskoch, Ya. E. - 157  
Dubrov, A. P. - 81

### E

Él'piner, I. E. - 40, 70, 90  
Erokhina, L. G. - 160

### F

Faludi-Daniel', A. - 134  
Fedenko, E. P. - 59  
Fesenko, E. E. - 24  
Fradkin, L. I. - 134  
Frontsish, V. - 62

### G

Gersamiya, G. K. - 43  
Golichenkov, V. A. - 57  
Goryaeva, O. V. - 40  
Graevskii, É. Ya. - 13, 126

Gribova, Z. P. - 77, 93, 103  
Gusareva, É. V. - 13

### I

Ivanitskaya, A. F. - 117  
Ivanov, I. I. - 124

### K

Kalendo, G. S. - 7  
Kalmanson, A. É. - 62  
Karapetyan, N. V. - 50  
Kardashev, V. L. - 43  
Kashchenko, L. A. - 164  
Kayushin, L. P. - 77, 93, 103  
Khamidov, D. Kh. - 129  
Kharitononov, I. G. - 62  
Khmara, M. E. - 20  
Khuseinov, F. - 164  
Kirichinskii, B. R. - 167  
Kolocheva, A. V. - 90  
Kol'tover, V. K. - 83  
Komissarov, G. G. - 131  
Konev, S. V. - 169  
Kovrov, B. G. - 26, 121  
Krasnovskii, A. A. - 50, 103, 109, 160  
Kutlakhmedov, Yu. A. - 83  
Kutyurin, V. M. - 96  
Kuzin, A. M. - 7, 67

### L

Lieh Suan T'u - 13, 126  
Litvin, F. F. - 86

### M

Madzhagaladze, G. V. - 145  
Makarchenko, A. F. - 167  
Marinov, B. S. - 77, 103  
Mazhul', V. M. - 169  
Mil'gram, V. D. - 59  
Mirakhmedov, A. K. - 129  
Monaselidze, D. R. - 145, 172  
Mrevlishvili, G. M. - 145, 154  
Murtazaeva, L. A. - 129

### N

Nazarov, N. M. - 96  
Nuzhdin, N. I. - 54

### O

Ochinskaya G. K. - 1  
Ol'shevskaya, O. P. - 4

### P

Panov, A. A. - 70  
Pastushenko-Strelets, N. A. - 54  
Petrov, R. V. - 114  
Popov, V. V. - 57

### R

Rikhireva, G. T. - 103  
Roitrub, B. A. - 167  
Rudoï, A. B. - 148

### S

Sedlovets, I. F. - 57  
Seisebaev, A. T. - 17  
Shapiro, I. M. - 4  
Shebaldina, A. D. - 40  
Shestakov, A. D. - 20  
Shlyk, A. A. - 99, 134, 148  
Shumov, Yu. S. - 131  
Shuvalov, V. A. - 86  
Sibel'dina, L. A. - 77, 93, 103  
Sokol'skaya, A. V. - 90  
Stekova, V. Yu. - 157  
Sukhorukov, B. I. - 83  
Sukhover, L. K. - 99  
Sukovatykh, L. S. - 20

### T

Tarakanova, G. A. - 157  
Tarasenko, A. G. - 13  
Tarshis, M. A. - 67  
Tarusov, B. N. - 152, 157  
Tokarskaya, V. I. - 37  
Tolpygo, K. B. - 175  
Tsoi, K. M. - 152  
Turkov, V. D. - 81

U  
Uteshev, A. B. - 67  
V  
Vanin, A. F. - 11

Vdovenko, V. M. - 20  
Veselovskii, V. A. - 152  
Vezitskii, A. Yu. - 148  
Voitkevich, A. A. - 73

Volokhonskii, L. Sh. - 112  
Y  
Yarmonenko, S. P. - 4  
Yuferov, V. P. - 62

# TABLES OF CONTENTS

## DOKLADY BIOPHYSICS

Volumes 178-183, 1968

(A translation of the Biophysics Sections of Doklady Akademii Nauk SSSR)

Volumes 178-180

January-June, 1968

Engl./Russ.

### VOLUME 178

Number of Reproductive Cycles of Paramecia in the Postradiation Period and the Times of Their Death—I. B. Bychkovskaya and G. K. Ochinskaya .....	3	222
Recovery of Rat Liver Cells from Chromosome Injuries Due to Fractional X-ray Exposure—O. P. Ol'shevskaya, I. M. Shapiro, and S. P. Yarmonenko .....	6	226
Metabolism of Rapidly Labeled RNA in HeLa Cells Synchronized in the S Stage by $\gamma$ -Irradiation—G. S. Kalendo and A. M. Kuzin .....	9	461
EPR Investigation of Frozen Animal Tissues—A. F. Vanin and A. G. Chetverikov .....	13	949
Cysteamine Content of Mouse Tissues and Ehrlich's Ascites Carcinoma Cells during the Period of Its Greatest Radioprotective Effect—A. G. Tarasenko, Lieh Suan T'u, É. V. Gusareva, and É. Ya. Graevskii .....	15	951
Catalase and Cytochrome Oxidase Activity in Plants with Different Radiosensitivity—M. K. Babaeva and A. T. Seisebaev .....	19	1198
Effect of Naphthidone (Synkavit) on the Survival of S3N/Sn Mice after Whole-body Irradiation and Its Efficacy in Local X-ray Therapy of Strain-specific Mammary-gland Adenocarcinoma—V. M. Vdovenko, L. S. Sukovatykh, V. N. Bobrova, A. D. Shestakov, and M. E. Khmara .....	22	1414

### VOLUME 179

Photoionization of Tyrosine at 80-160°K in an Alkaline Medium—E. E. Fesenko .....	29	717
A Mathematical Model of Biosynthesis in a Light-Limited Culture of Microalgae—V. N. Belyanin and B. G. Kovrov .....	31	1463

### VOLUME 180

Radiosensitivity of Natural DNA-RNA Complex from Seed Embryos—V. I. Tokarskaya .....	37	482
Effect of Ultrasound and Surface Forces on the Release of Native DNA from Bacteriophage T2—I. E. Él'piner, O. V. Goryaeva, and A. D. Shebaldina .....	40	486
Some New Information on the Biological Action of Microwaves—V. L. Kardashev and G. K. Gersamiya .....	43	730
Protection by Cysteamine against Chromosome Aberrations in Human Peripheral Blood Leucocytes Irradiated in Vitro—L. B. Berlin .....	47	985
Spectral Properties and Light-induced Transformations of Bacteriochlorophyll in Purple Bacteria (Rhodospirillum rubrum)—N. V. Karapetyan and A. A. Krasnovskii .....	50	989
The Effect of Ecological Conditions during Cultivation of the Plants on the Frequency of Chromosome Aberrations in $\gamma$ -Irradiated Barley—N. I. Nuzhdin and N. A. Pastushenko-Strelets ..	54	993
Behavior of Tadpole Melanophores in Different Lighting Conditions—I. F. Sedlovets, V. A. Golichenkov, and V. V. Popov .....	57	1235

Optimum Energy Yield of Photosynthesis—L. N. Bell, E. P. Fedenko, and V. D. Mil'gram . . . . .	59	1480
EPR Spectra of Free-radical Products of the Reaction of Ninhydrin with Peptides —V. P. Yuferov, V. Frontsish, I. G. Kharitononkov, and A. É. Kalmanson . . . . .	62	1484

## Volumes 181-183 July-December, 1968

### VOLUME 181

The Effect of Gamma-Irradiation on the Cytochrome b and c Content of Thymocyte Nuclei — M. A. Tarshis, A. B. Uteshev, and A. M. Kuzin . . . . .	67	234
Effect of Ultrasound on Nerve Cells of Caterpillar Brain — O. K. Basurmanova, A. A. Panov, and I. E. Él'piner . . . . .	70	476
Activation of Lysosomes in Secretory Neurons of Hypothalamus — A. A. Voitkevich and I. I. Dedov . . . . .	73	478
Measurement of Lifetime of Triplet Excited State of Porphyrins by EPR Method — L. A. Sibel'dina, Z. P. Gribova, L. P. Kayushin, and B. S. Marinov. . . . .	77	482
Comparative Efficacy of Gamma-Ray and Ultraviolet Irradiation for the Production of Haploid Seeds of Tomato ( <i>Lycopersicon esculentum</i> Mill.)— V. D. Turkov and A. P. Dubrov, . . . . .	81	486
Investigation of Membranes of Cell Organelles by the Paramagnetic-Probe Method — V. K. Kol'tover, Yu. A. Kutlakhmedov, and B. I. Sukhorukov . . . . .	83	730
Long Afterglow of Chlorophyll in Plants and Energy Traps in Photosynthesis — F. F. Litvin and V. A. Shuvalov . . . . .	86	733
Synthesis of Peptides, Heterocyclic Compounds, and Amino Acids in an Ultrasonic Field — I. E. Él'piner, A. V. Sokol'skaya, and A. V. Kolocheva . . . . .	90	737
Electron Paramagnetic Resonance of Triplet Excited State of Bases and Metal Complexes of Porphyrins and Effect of Temperature on Parameters of EPR Spectra — Z. P. Gribova, L. P. Kayushin, and L. A. Sibel'dina . . . . .	93	1266
Efficiency of Oxygen Evolution by Algae Illuminated with Longwave Light ( $\lambda > 700 \text{ m}\mu$ ) — V. M. Kuturina, N. M. Nazarov, and I. N. Anisimova . . . . .	96	1270
Fractionation of Metabolically Heterogeneous Pigment Pools of Euglena — A. A. Shlyk and L. K. Sukhover . . . . .	99	1274
Measurement of Triplet Excited State in Solutions and Films of Photosynthetic Pigments, in Chloroplasts, and Greening Leaves— G. T. Rikhireva, L. A. Sibel'dina, Z. P. Gribova, B. S. Marinov, L. P. Kayushin, and A. A. Krasnovskii . . . . .	103	1485

### VOLUME 182

Photochemical Properties of Aggregated Forms of Chlorophyll and Its Analogs — A. A. Krasnovskii and M. I. Bystrova . . . . .	109	211
Explanation of a Chromostereoscopic Effect— L. Sh. Volokhonskii . . . . .	112	459
Increase in Radioresistance of Immunologically Competent Cells in Previously Irradiated Mice — R. V. Petrov and A. N. Cherdeev . . . . .	114	462
Reduction of Radiation Injury in Mice by <i>S. typhi</i> Vi-Antigen and Colibacterin ( <i>Escherichia coli</i> M <sub>17</sub> ) — A. F. Ivanitskaya . . . . .	117	701
Dependence of Growth of Microalgae on Carbon Dioxide Concentration — B. G. Kovrov and V. N. Belyanin . . . . .	121	705
A Possible Explanation of the High Radiosensitivity of Cells (Radiosensitivity of DNA Synthesis) in the S Period of Interphase— I. I. Ivanov . . . . .	124	963
Correlation between Amount of Sulfhydryl Groups in Hemopoietic Tissue and Radiosensitivity of Mice of Different Strains during Postnatal Development — Lieh Suan-t'u and É. Ya. Graevskii . . . . .	126	965
An Electron-Microscopic Investigation of Compensatorily Hypertrophied Adrenal after Whole-Body Exposure to Co <sup>60</sup> Gamma-Rays— D. Kh. Khamidov, L. A. Murtazaeva, and A. K. Mirakhmedov . . . . .	129	969

The Possibility of Photoelectrolysis of Water on Models Containing Photosynthetic Pigments and in the Green Leaf - G. G. Komissarov and Yu. S. Shumov . . . . .	131	1226
Fluorescence of Chlorophyll b in a $\xi$ -Carotene Corn Mutant - L. I. Fradkin, A. Faludy-Daniél', and A. A. Shlyk . . . . .	134	1420
An Investigation of the Functional Groups of the Active Center of Creatine Kinase by the Photooxidation Method - E. P. Chetverikova and L. L. Alievskaya . . . . .	138	1424

## VOLUME 183

A Calorimetric Investigation of the Nature of the Intramolecular Fusion of Collagen Extracted from a Transplantable Tumor - É. L. Andronikashvili, G. M. Mrevlishvili, N. G. Bakradze, G. V. Madzhagaladze, D. R. Monaselidze, and Z. I. Chanchalashvili . . . . .	145	212
The Immediate Appearance and Accumulation of Chlorophyll b after a Brief Illumination of Etiolated Seedlings - A. B. Rudoi, A. A. Shlyk, and A. Yu. Vezitskii . . . . .	148	215
Effect of Salinization on the Ultraweak Luminescence of the Root System of Plants - K. M. Tsoi, V. A. Veselovskii, and B. N. Tarusov . . . . .	152	219
An Investigation of the State of Water in Tumor Tissues by the Calorimetric Method - É. L. Andronikashvili and G. M. Mrevlishvili . . . . .	154	463
The Effect of Constant Magnetic Fields on the Spontaneous Ultraweak Chemiluminescence of Plants - Ya. E. Doskoch, V. Yu. Strekova, G. A. Tarakanova, and B. N. Tarusov . . . . .	157	466
Conditions of Quenching and Enhancement of the Fluorescence of Phycoerythrin - A. A. Krasnovskii and L. G. Erokhina . . . . .	160	470
Response of Glandular Parenchyma of Adenohypophysis of Mice Surviving Acute Radiation Sickness Due to Shielding of Part of Bone Marrow - L. A. Kashchenko and F. Khuseinov . . . . .	164	960
Demonstration of Latent Macrostructural Injuries Produced in Serum Proteins by Ionizing Radiation - A. F. Makarchenko, B. R. Kirichinskii, B. A. Roitrub, and V. A. Baraboi . . . . .	167	963
Existence of Forms of Native Protein with Different Degrees of Radical Mobility - S. V. Konev, V. M. Mazhul', and E. A. Chernitskii . . . . .	169	1201
An Investigation of Intramolecular Fusion of Collagen by the Calorimetric Method - D. R. Monaselidze and N. G. Bakradze . . . . .	172	1205
An Exact Solution of the Problem of Cell Multiplication in the Presence of a Mutagenic Factor - K. B. Tolpygo . . . . .	175	1209

## INDEX

Author Index, Volumes 178-183, 1968 . . . . .	183
Table of Contents, Volumes 178-183, 1968 . . . . .	185







